

WHAT IS CLAIMED IS:

1. A filter platform for allowing attachment of an air filter unit thereto, the filter platform comprising:

a substantially hollow outer housing, the housing forming a chamber within the platform, the housing having a first opening at one end for engaging the platform with a respirator so as to allow air to flow between the chamber and the respirator, and a second opening for engaging the platform with the air filter unit so as to allow filtered air to flow into the chamber;

a respirator connection member located in association with the first opening, the respirator connection member being structured to sealingly engage the first opening to an input of the respirator; and

a filter connection member located in association with the second opening, the filter connection member being structured to sealingly engage the second opening with the filter unit.

2. A filter platform according to claim 1, wherein the housing has a third opening at an end of the housing opposite the first opening, the third opening having means for opening and closing the third opening.

3. A filter unit comprising:

a substantially hollow filter pad having first and second walls made of filter material, and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly engaged to the annular edge member, the annular edge

member having an opening for allowing filtered air to pass out of the filter unit, the annular edge member extending around part or all of the periphery of the filter pad, and

a connection member located in association with the opening, for connecting the filter unit to a source of suction.

4. A filter unit for filtering air to be fed to a respirator through a filter platform comprising an outer housing, the housing forming a chamber within the filter platform, the housing having a first opening at one end of the housing for engaging the platform with a respirator so as to allow air to flow between the chamber and the respirator, and a second opening for engaging the platform with the air filter unit so as to allow filtered air to flow into the chamber; a respirator connection member located in association with the first opening, the respirator connection member being structured to sealingly engage the first opening to an input of the respirator; and a filter connection member located in association with the second opening, the filter connection member being structured to sealingly engage the second opening with the filter unit, the filter unit comprising:

a substantially hollow filter pad having first and second walls made of filter material, and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly engaged to the annular edge member, the annular edge member having an opening for engaging the filter unit with the second opening of the filter platform; and

a platform connection member located in association with the opening for engaging, the platform connection member being structured to sealingly engage the filter unit with the filter connection member of the platform.

5. A filter device comprising:

(a) filter unit comprising:

a substantially hollow filter pad having first and second walls made of filter material, and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly engaged to the annular edge member, the annular edge member having an opening for allowing filtered air to pass out of the filter unit, and

a platform connection member located in association with the opening for allowing filtered air to pass; and

(b) a filter platform comprising:

a substantially hollow outer housing, the housing forming a chamber within the platform, the housing having a first opening at one end of the housing for engaging the platform with a respirator so as to allow air to flow between the chamber and the respirator, and a second opening for engaging the platform with the air filter unit so as to allow filtered air to flow into the chamber;

a respirator connection member located in association with the first opening, the respirator connection member being structured to sealingly engage the first opening to an input of the respirator; and

a filter connection member located in association with the second opening, the filter connection member being structured to sealingly engage the second opening with the filter unit.

6. A filter unit comprising:

a substantially hollow filter pad having first and second walls made of filter material and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly engaged either to each other or to the annular edge member fully or partially, the annular edge member having an opening and means for connecting the filter unit to a respirator or source of suction, with or without additional or intermediary connecting structure.

7. A filter unit according to claim 6, wherein said filter unit is structured to allow connection to the respirator or source of suction in parallel with, or at predetermined orientations, angles and positions with respect to the respirator or source of suction, with or without additional or intermediary connecting structure.